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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,172	06/08/2006	Hiroshi Nakanishi	4539-0115PUS1	8941

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EXAMINER	
KIANNI, KAVEH C	

ART UNIT	PAPER NUMBER
2883	

NOTIFICATION DATE	DELIVERY MODE
06/03/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/582,172	NAKANISHI ET AL.	
	Examiner	Art Unit	
	K. Cyrus Kianni	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) *19-27* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 12-18* is/are rejected.

7)☒ Claim(s) *9-11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/8/06 and 2/20/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's election without traverse of Group IA, claims 1-18, in the paper submitted is acknowledged. The requirement is still deemed proper and is therefore made FINAL.

Allowable Subject Matter

Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim allowable because the prior art of record, taken alone or in combination, fails to disclose or render obvious wherein step (c) comprises a step of performing exposure to substantially parallel light while varying an incident angle of the substantially parallel light with respect to the one principal face in combination with the rest of the limitations of the base claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly

owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara; Hiroshi US 6628355 B1.

Tanhakara teaches a production method for a display panel having a microlens array (see at least fig. 95), including a display panel and a plurality of microlenses provided on a light-incident side of the display panel (see filed of invention and fig. 95)), comprising:

(a) a step of providing a display panel having a plurality of pixels in a matrix arrangement (see col. 5, 3rd parag.), wherein each of the plurality of pixels has a plurality of picture elements, including a first picture element transmitting first color light and a second picture element transmitting second color light which is different from the first color light (see col. 5, 3rd parag.);

(b) a step of forming a photocurable material layer 691 on one of a pair of principal faces, being opposite to each other, of the display panel (at least fig. 95 and col. 130, lines 34-65+);

(c) a step of exposing the photocurable material layer to light via the display panel, wherein the photocurable material layer is at least partially cured with

light which has been transmitted through at least the first picture element (at least fig. 95 and col. 130, lines 34-65+ the microlenses 641 behind the color filter 151 and pixel electrodes 14a,14b and 14c red, blue and green col. 72, lines 35-48; wherein the microlens is positioned at exit side of the display thus being irradiation through the display having pixel array see col. 129, line 50+); and

(d) a step of etching an uncured portion of the photocurable material layer having been exposed to light, thereby forming a plurality of microlenses (see at least fig. 95-96 and parag. 347-349).

Takahara further teaches wherein step (a) is a step of providing a display panel such that, among central wavelengths of any color light transmitted through the plurality of picture elements, a central wavelength of the first color light is the shortest wavelength (see pixel electrodes 14a,14b and 14c wherein blue has the shortest c. wavelength); wherein step (b) is a step of forming a photocurable material layer which is photosensitive to light of shorter wavelengths than the central wavelength of the first color light (see pixel electrodes 14a,14b and 14c wherein blue is shorter than green and green is shorter wavelength than that the red color); wherein step (c) comprises a step of at least partially curing, with light transmitted through the first picture element, the photocurable material layer corresponding to the plurality of picture elements included in each of the plurality of pixels ; and step (d) comprises a step of forming a plurality of microlenses arranged in accordance with the arrangement of the plurality of pixels of the display panel (at least fig. 95-96 and col. 130, lines 34-65+ and parag. 347-349); wherein step (a) is a step of providing a display panel such that each of the

plurality of pixels has the first picture element in a substantial center thereof (see t least fig. 95 and pixel electrodes 14a,14b and 14c. colors RGB); wherein, step (a) is a step of providing a display panel such that the plurality of picture elements include a red picture element, a blue picture element, and a green picture element; and step (c) is a step of at least partially curing the photocurable material layer with light transmitted through at least the blue picture element (at least fig. 95 and col. 130, lines 34-65+ the microlenses 641 behind the color filter 151 and pixel electrodes 14a,14b and 14c red, blue and green col. 72, lines 35-48; wherein the microlens is positioned at exit side of the display thus being irradiation through the display having pixel array see col. 129, line 50+); wherein step (b) is a step of forming a photocurable material layer which is photosensitive to light in a wavelength range of no less than 380 nm and no more than 420 nm (see pixel electrodes in these wavelength ranges such as G and B); wherein step (c) comprises a step of at least partially curing, with light transmitted through at least the blue picture element, regions of the photocurable material layer corresponding to the red picture element, the blue picture element, and the green picture element. (at least fig. 95 and col. 130, lines 34-65+ the microlenses 641 behind the color filter 151 and pixel electrodes 14a,14b and 14c red, blue and green col. 72, lines 35-48; wherein the microlens is positioned at exit side of the display thus being irradiation through the display having pixel array see col. 129, line 50+); wherein step (c) comprises a step of adjusting a light distribution (see col. 3, 2nd para.); wherein step (c) comprises a step of adjusting the light distribution by using a

photomask having a predetermined distribution of transmittance (see above discussed color pixels); wherein the microlenses each have a flat portion in an apex portion thereof, the flat portion having no light converging effects (shown fig. 95); wherein the microlens are lenticular lenses, each flat portion having a size substantially equal to or smaller than a size of an aperture of each picture element of the display panel along a converging direction of the lenticular lenses (see col. 97, 2nd parag.); wherein the microlenses correspond to respective apertures of the plurality of picture elements of the display panel, each flat portion having a size substantially equal to or smaller than a size of an aperture of each picture element (at least fig. 95-96 and col. 130, lines 34-65+ the microlenses 641 behind the color filter 151 and pixel electrodes 14a,14b and 14c red, blue and green col. 72, lines 35-48; wherein the microlens is positioned at exit side of the display thus being irradiation through the display having pixel array see col. 129, line 50+); disposing a surface illuminant at the microlens side of the display pane l or a surface illuminant for emitting light toward the microlens array of the display panel (see col. 6, lines 55-65).

However, Takahara does not specifically teach wherein the above etching of uncured material is that of removing the material. It is obvious/well-known to those of ordinary skill in the art when the invention was made that etching a material is/known as removing material since such removing would provide correction and driving the display panel optimally (see col. 1).

Citation of Relevant Prior Art

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

US 20020131022 A1
US 6628355 B1
US 20050253975 A1
US 20040114111 A1
US 20040240777 A1

These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is 571-272-2417. The examiner can normally be reached on 9:30-19:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/K. Cyrus Kianni/

Primary Examiner, Art Unit 2883

May 8, 2008